

# 1. INTRODUCTION

## 1.1 Purpose of This Manual

The purpose of this manual is to provide public sponsors of non-Federally constructed and maintained flood control projects with a single reference that describes proper operation and maintenance of flood control projects, and outlines the types of assistance the U.S. Army Corps of Engineers can provide before, during, and after a flood. This manual provides information regarding the Corps' Rehabilitation and Inspection Program (RIP), and explains the minimum standards for operation and maintenance that the Corps requires of non-federal flood control projects, in order for them to be eligible for the Corp's rehabilitation assistance after a flood. However, since the procedures described are considered to be the minimum guidelines for proper maintenance of any flood control project, the manual is a useful reference for all public sponsors of flood control projects regardless of their status or involvement in the RIP.

The publication of this manual was directed by Public Law 104-303, the Water Resources Development Act of 1996. It covers more than just levees, but it's called a *Levee Owner's Manual* because of the statutory wording in this law.

## 1.2 Scope of This Manual

This Levee Owner's Manual is intended for general use by public sponsors of existing non-federally constructed flood control works (FCWs) throughout the United States. Because of the wide range of FCWs, from small channels to large levees, it doesn't cover the detailed operation and maintenance of all project-specific features or the necessary steps to respond to specific situations such as ice jam flooding. Also, it only covers the operation and maintenance of FCWs that are already completed, rather than the engineering design and construction of new ones or new modifications. Corps inspections may address specific features that aren't specifically covered in this manual. For supplementary information on the operations and maintenance of Corps programs, specific features of your project, or specific situations, please contact your Corps district's Emergency Management Office.

## 1.3 Supporting and Related Laws and Regulations

In addition to presenting practical guidance on the operation and maintenance of flood control projects, this manual gathers together a lot of information from official laws and Corps regulations. Though every effort was made to present this information as accurately as possible, this manual itself is not meant to establish policy or official guidance. For additional details on the policies described and to find the actual wording given in the laws and regulations summarized in this manual, the reader is referred to the following documents:

**a. Public Law (PL) 84-99**

This is the federal law which gives the Corps the legal authority to supplement local efforts in the repair of flood control projects that are damaged by floods. It can be found on the web at <http://uscode.house.gov>. Click on the link to “Search the US Code.” Search for title “33” and chapter “15”. Look through the search results, and the current form of PL 84-99 will be listed as 33 USC 701n.

**b. Title 33, Code of Federal Regulations, Part 203 (33 CFR 203)**

This federal regulation establishes the Rehabilitation and Inspection Program (RIP), describes the types of assistance the Corps can provide, and describes the general operation, maintenance, and disaster preparedness that is expected of non-federal flood control works. The current version of the CFR can be accessed through the CFR main page, <http://www.gpoaccess.gov/cfr/index.html>. Select “Browse and/or search the CFR,” then scroll down to the current version of Title 33, (Navigation and Navigable Waters). Browse parts 200-399; then open part 203.

**c. Title 33, Code of Federal Regulations, Part 208 (33 CFR Part 208):**

This federal regulation provides more specific details on the operation and maintenance required of Federally constructed FCWs. This regulation provides a guideline for O&M, but doesn’t provide the level of detail regarding specific requirements that the Levee Owner’s manual does. The current version of the CFR can be accessed through the CFR main page, <http://www.gpoaccess.gov/cfr/index.html>. Select “Browse and/or search the CFR,” then scroll down to the current version of Title 33, (Navigation and Navigable Waters). Browse parts 200-399; then open part 208.

**d. Engineer Regulation (ER) 500-1-1**

This Corps-wide regulation expands on the previously mentioned laws and regulations, provides basic information on the Corps’ implementation of Public Law 84-99. Chapter 5 of ER 500-1-1 details the RIP program. Any discrepancies or conflicts that occur between the Levee Owner's Manual and ER 500-1-1 will be resolved based on the content of ER 500-1-1. This document can be found on the web at <http://www.usace.army.mil/inet/usace-docs/eng-regs/er500-1-1/toc.htm>

**e. Engineer Pamphlet (EP) 500-1-1**

This Corps-wide pamphlet provides further detail on how the ER will be applied practically. It establishes the Inspection Guide and other applicable forms that are listed in the appendices to this manual. Any discrepancies or conflicts that occur between the Levee Owner's Manual and any EP or ER will be resolved based on the content of the ER or EP, and any discrepancies or conflicts that occur between the EP and the ER will be resolved based on the content of the ER. EP 500-1-1 can be found on the web at <http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep500-1-1/toc.htm>

**f. Engineer Manual (EM) 1110-2-1913**

This manual provides the Corps of Engineer's guidelines for engineering design and construction of levees. The document can be found at

<http://www.usace.army.mil/inet/usace-docs/eng-manuals/em1110-2-1913/toc.htm>

**g. Engineer Manual (EM) 1110-2-301**

This manual provides guidelines for landscape planting at Floodwalls, Levees, and Embankment Dams. This document provides additional clarification as to which types of vegetation are acceptable on and around flood control works. This can be found at

<http://www.usace.army.mil/inet/usace-docs/eng-manuals/em1110-2-301/toc.htm>

**h. Engineer Manual (EM) 1110-2-2705**

This manual provides guidance on the design of closure structures for local flood control projects. It can be found on the web at

<http://www.usace.army.mil/inet/usace-docs/eng-manuals/em1110-2-2705/toc.htm>

**i. Engineer Manual (EM) 1110-2-1205**

This manual provides information regarding environmental engineering for flood control channels. This EM can be found at

<http://www.usace.army.mil/publications/eng-manuals/em1110-2-1205/toc.htm>

## **1.4 Reproduction**

The material presented is not copyrighted and can be reproduced as needed. This and similar materials can be downloaded from

<http://www.usace.army.mil/inet/functions/cw/cecwhs/em/fcw/fcw.html> Send inquiries to the U.S. Army Corps of Engineers Headquarters, Emergency Management Branch, 441 G St NW, Washington, DC, 20314. Send inquiries to [CECW-HS@USACE.ARMY.MIL](mailto:CECW-HS@USACE.ARMY.MIL) The Corp's 24-hour emergency telephone number is 202-761-1001.

## **1.5 Future Revisions**

There are no scheduled future revisions of this manual. However, as Corps districts and divisions revise and improve upon various sections of this text, it is requested that these revisions be provided to the Office of Homeland Security in Corps Headquarters, so that the most current and accurate information can be presented on the Corps website and shared with other districts. The Corps would also make use of any updated or corrected information when compiling similar manuals in the future.

## **1.6 Disclaimer**

Nothing in this manual creates any liability of the United States or its officers or employees for the recovery of damages caused by an action or failure to act; or relieves the owner or operator of a Flood Control Work of any legal duty, obligation or liability incident to the ownership or operation of the Flood Control Work.